Social and Enactive Perspectives on Pretending

Zuzanna Rucińska
Centre for Philosophical Psychology
University of Antwerp, Belgium
zuzannaaleksandra.rucinska@uantwerpen.be

Abstract

This paper presents pretending as an enacted and fundamentally social activity. First, it demonstrates why we should think of pretense as inherently social. Then, it shows how that fact affects our theory in terms of what is needed in order to pretend. Standardly, pretense is seen as requiring a mechanism that allows one to bypass the "obvious" response to the environment in order to opt for a symbolic response; that mechanism is imaginative and representational.

This paper shows that the Enactive Account of Pretense reconsiders the idea that one needs to respond to an absent environment when pretending, proposing instead that socially constituted perceptual affordances for play allow for non-obvious ways of responding to the present environment. The enactive account of pretense suggests that one need not posit special cognitive pretense mechanisms and mental scripts in order to account for pretending, as available capacities for active perception and re-enactment of routines suffice.

This paper concludes with suggestions for the kinds of cognitive skills that should be sought out to explain pretense.

Keywords: pretending; pretense; enactivism; social cognition; perception; imagination; scripts.

1. Introduction

Pretending is part and parcel of our culture, taking part in the institutionalization of our lives (for example, taking on social roles). It refers to a myriad of activities, including playing with toys, role-playing, or playing with an imaginary friend. Apart from play, pretending also occurs in acting and deceiving. There is an ongoing debate over whether

the forms of interaction of very young children and animals can genuinely count as pretense. While pretending can be associated with behavior like teasing at an early age, or animal behaviors such as camouflaging and deception (Mitchell, 2002), what is debated is whether these are genuine cognitive acts of pretense as opposed to behaviors resembling pretense. It has been suggested that due to the rich variety of phenomena that the term "pretense" covers, it should be treated as an umbrella term, which relates the various phenomena it encompasses through a family resemblance. It may be possible that these phenomena lack a common core.

However, many look for a common core in pretense, and agree that pretending activities are necessarily *symbolic*. Standardly, pretense is seen as requiring an individual, representational capacity that allows one to think, or imagine, one thing as another. While various Special Pretense Mechanisms (henceforth: SPMs) have been proposed to account for pretense (Leslie, 1987; Nichols & Stich, 2000, 2003; Harris, 2000; Currie, 2004), what they have in common is that they have been proposed as responses to what I will characterize as the "bypassing challenge," or the challenge of how to explain that in pretense, one bypasses the typical, or "obvious" response to the environment in order to opt for a symbolic response (Picciuto & Carruthers, 2016).

This paper will defend two proposals: first, that pretending is best described not as an individual capacity, but inherently as a social activity, and second, that such account of pretend activities is to be found in enactive theories of perception and in enacted routines, not in SPMs that invoke imagination-as-representation and mental scripts. The enactive account of pretense, which takes sociality to be constitutive of pretense, reconsiders the idea that one responds to an absent environment while pretending, and proposes that affordances for play shaped by social norms are present in the play environment instead. It proposes that pretending is not dependent on mentally representing an absent entity, but is a form of enacting or *presenting* a possible situation in action instead, which follows on from re-enacting social norms.

This position stands in sharp contrast to the cognitivist view of pretense, which sees pretense as requiring a form of individual cognitive capacity for offline imagination and mental representation; instead it builds on active perception and re-enactment of routines, not guided by SPMs, to account for pretending. Ultimately, the paper shows that the bypassing challenge is not a challenge for enactivists: there are no obvious and non-obvious ways of responding to the environment, as all responses are shaped by social norms, and possibilities for pretend actions are just as present in the environment as standard ways of responding to it. This makes looking for SPMs a moot activity, and other capacities and mechanisms underlying pretend play should be evaluated—as will be proposed in the last section.

The paper will unfold in the following manner. Section 2 provides standard characterizations of pretense and elucidates the bypassing challenge and SPMs. Section 3 gives reasons to think of pretense as an inherently social activity. Section 4 clarifies the enactivist approach to pretense. Section 5 explains how: a) the enactive understanding of perception, and b) a proposal for enacted routines, can account for pretending. Section 6 concludes

the paper with why the bypassing challenge can be dismissed. Section 7 follows up with suggestions of what might be needed for pretense to occur that do not invoke SPMs.

2. Standard Characterizations of Pretense

Many are inclined to speak of pretense as an activity of *symbolic thinking* (Piaget, 1962; Leslie, 1987; Nichols & Stich, 2000; Mitchell, 2002). Just as symbols stand in for something else (e.g., a flag stands for country "X"), pretense shows itself as requiring the ability to *think of* one thing (e.g., a banana) as another (e.g., a phone) (Leslie, 1987; Nichols & Stich, 2000). Other proposals defer from thinking and conceptualize pretense as a form of symbolic *seeing* of one thing as another (Harris, 1994; Currie, 2004). As Varga (2011, p. 47) summarizes, pretend play that is widely seen as symbolic play involves:

a) object substitution: using an object *as if* it is something else (e.g., using a toy car as an airplane);
b) attribution of false properties: ascribing a pretend property to something (e.g., pretending that the doll's dry hair is wet, or that the doll is hungry);
c) reference to an absent object: the invention of an imaginary object (e.g., feeding the doll invisible cake) and referring to it *as if* it were present (see also Leslie 1987, p. 8).[1]

Many in the field are also inclined to characterize these symbolic activities as involving *mental representations* (see Liao & Gendler, 2010).[2] For example, Lillard (1994, pp. 212–214) lists the necessary ingredients of pretense to include a mental representation of the pretense scenario in the pretender's mind, and separately, a mental representation that is projected onto reality, and the pretender's awareness of both the reality and the fact that the representation is projected onto the reality. She mentions additional features of pretense, namely non-serious emotional tone, and being an actual activity, but these are not seen as constitutive of pretense.

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[1] Pretense is part of the common development of children (see Liao & Gendler, 2010), and there seems to be a developmental trajectory between the above-mentioned capacities. For example, object-substitution play usually forms around the age of two; attribution of false properties, visible in role-playing, where the child takes his or herself as the object of pretense, is developed around the age of four; and from around the age of six, many Western children have imaginary companions (Harris & Kavanaugh, 1993; Taylor, 1999). This is a major step in development, as the child does not necessarily act on props, but has conversations with what is described to be an "absent" entity. Hence, one might believe that "understanding children's pretense is necessary to get some idea as to the phenomenon itself and its scope" (Mitchell, 2002, p. 4).

[2] Mental representations can be best described as internal models that stand in for the world; they are causally potent, information-carrying vehicles that fulfil a condition of satisfaction. They stand in for, and thereby say or specify, something about the external world; the nature of specifying is that it can do so accurately or inaccurately, thereby being prone to misrepresentation.

The symbolic nature of pretend play is said to require being able to represent one thing as another, represent rules, represent absent entities, or represent fact and fiction. The representation for pretense is said to be achieved on a subpersonal level of cognition thanks to special cognitive mechanisms for pretense. The SPMs include Leslie's (1987) *decoupling mechanism*, Nichols & Stich's (2000) *inference mechanism*, Harris' (2000) *flagging mechanism,* or Currie's (2004) *decentring*, to take but a few examples. I will briefly discuss these classic examples from the literature.

Leslie's *decoupling mechanism* "decouples" a primary representation of current perceptual situation (this is a banana) from secondary pretense representation by "marking" (or making a copy of) the primary representation ("this is a banana"), on which manipulations can then be made without losing the original representation (1987, p. 417).[3] Nichols & Stich (2000) posit an *inference mechanism* that incorporates a cluster of smaller mechanisms (e.g., Possible World Box and UpDater). The initial premises about the world enter the Possible Worlds Box (*PWB* in short), leaving the Belief Box with the true beliefs (e.g., "this is really a banana") and the Desire Box (really wanting to play banana-phone) intact. The PWB is said to quarantine the pretense-initiating representations, and thereby avoids representational abuse and conceptual confusion (Nichols & Stich, 2000, p. 136). The Up-Dater ensures that the beliefs that go into the PWB remain fresh and intact. Harris' *flagging mechanism* has been introduced to "flag" a prop (yellow brick) with a representation (e.g., "this yellow brick is a banana") or to flag a specific pretend episode: "During this episode, yellow bricks are (make-believe) bananas" (Harris, 2000, p. 66). Harris claims that to successfully play banana-phone, a child must "flag," or act according to a rule, that "this banana is not a phone" and edit these rules to generate new flags, with "statements written on the various flags" (2000, p. 66). Currie (2004, 2006) claims it is thanks to seeing one thing "as" another, or what he calls *decentring*, that we can explain pretense. Following Currie & Ravenscroft's (2002) proposal for "Recreative Imagination," which treats imagination as a form of off-line simulation of possible scenarios, Currie describes *decentring* in terms of a shift of perspectives that involves a mechanism for representing and manipulating perceptual contents off-line: "Decentring indicates the (relative) freedom from environmental constraint and sensitivity to representational content we think of as part of rationality" (2004, p. 211). Decentring requires representing the world "as if," based on the capacity to simulate the environment in its absence, and allows for *seeing-as*. To *see-as*, according to Currie, "the pretending creature represents the world, not as it is, but as it might be" (2006, p. 276).

These SPMs proposed in the literature are invoked to answer what I will call the *bypassing challenge*. They are proposed to explain *why* it is the case that, in pretense,

> [...] an obvious option or response is bypassed, and instead an unobvious option or response is selected. If a child looking at a banana is to pretend that the banana is a telephone, then

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[3] According to Leslie, one also needs to possess and exercise the concept "I PRETEND" to meta-represent oneself as the agent of the cognitive manipulations.

she must bypass the obvious response: her sensory systems will all be informing her that what she is looking at is a banana. *Instead, she must suppress the obvious tendency to see the object as a banana, and select the option of seeing it as a telephone instead.* (Picciuto & Carruthers, 2016, p. 323, emphasis added)

The "bypassing challenge" is representative of the standard representational characterizations of pretense. It suggests that perceptual mechanisms do not suffice to account for pretense, as during pretending, one "steps away from what is seen" and acts on what is "imagined" instead, in the "absence" of a relevant stimulus. It also suggests that one must act in accordance with a different meaning than the one given in the environment.[4] It is imaginings together with mental scripts for action that are said to be necessary to guide pretense (see section 5), as they go beyond mere perception. They require versions of the abovementioned SPMs in an individual's cognitive architecture, which somehow suppress one type of content (perceptual content) and proposes another (symbolic content) in its place. This is motivated by the idea that in pretense we have to "entertain two representations of a single situation, one literal/veridical/real and the other nonliteral/distorted/pretend/ imaginary" (Russon, 2002, p. 237).

However, this paper will propose that the bypassing challenge arises only in a context where pretense is seen as requiring transformation of primary or true representations, or immediate meanings, as received from the environment, into secondary, fictional or non-immediate ones that are absent from the environment. This paper will show that with an enactive approach to pretense (understood as a constitutively social capacity), the theorist can reconceive the ideas about what is perceptually given in the environment, as perception is influenced by social norms. Enactivism can thereby dismiss the bypassing challenge altogether: one does not step away from what is seen, but sees a new affordance for action, which is socially established. To promote this position, the sections below will explain why pretending can and should be seen as an inherently social activity, and explicate the foundation for the Enactive Account of Pretense that promotes this re-description.

3. Pretending as an Inherently Social Activity

What the classic positions on pretense, that characterize it as representational, fail to address is that pretense is more *social* in nature than initially thought. The classic positions emphasize the primacy of individualized mechanisms for pretense and symbol-swapping,

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[4] A version of the bypassing challenge has been suggested by enactivists as well. For example, as Di Paolo (2016) writes, in the context of pretense, I must adopt a "detached observational attitude towards an object," and in order to do that, "I must be able to empty it of its most immediate meaning for myself, to temporarily bracket its significance" (p. 245). While Di Paolo does not propose that an internal representational mechanism does that (as "decentring, it would seem, is an act" (p. 244), he seems to acknowledge a version of the bypassing challenge. As the paper will show, I do not think that this challenge needs to be met at all; one does not need to "empty the attitude from an immediate meaning" as, it will be shown, there is no such immediate meaning in the first place. However, I agree with Di Paolo that if there is a capacity to detach at play, make-believe is essential in achieving it (pp. 228–229).

without considering the primacy of social interactions in shaping pretend engagements, as well as their ongoing effect on how pretense takes form.

To clarify how we can think of the role of the "social" in pretense, I will apply De Jaegher, Di Paolo & Gallagher's (2010) three-fold distinction between a *contextual,* an *enabling* or a *constitutive* role for social factors in social cognitive phenomena. As they explain,

> given X, and a particular situation in which X occurs:
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> a) F is a contextual factor if variations in F produce variations in X,
> b) C is an enabling condition if the absence of C prevents X from occurring and
> c) P is a constitutive element if P is part of the processes that produce X.

A contextual factor is simply something that has an effect on X, and can be determined by observing how X is changed when the factor is changed. An enabling condition not only influences the phenomenon (therefore also being contextual), but is also necessary (either contemporaneously or historically) for X to occur. A constitutive element is part of the phenomenon (it must be present in the same time frame as the phenomenon) (p. 443).[5]

I will apply this distinction, augmented by the addition of a motivational role, to discuss the role of social engagements for pretense. These roles can be reconceived as answers to the following questions:

1. Contextual role: what affected *how* children pretend play?
2. Enabling role: what affects *that* children pretend play?
3. Motivational role: what affects *why* children pretend play?
4. Constitutive role: what *is* part of children's pretend play?

3.1. Contextual role: what affected *how* children pretend play?

That social (and cultural) factors play at least a contextual role in pretense is not controversial and is widely accepted. Looking at the development of the various pretend and imaginative practices, we see that they first and foremost occur in a social context. Human mothers and siblings are said to "not only 'enhance' and 'elaborate' infants' 'fleeting and sporadic' early attempts to pretend, but initiate, demonstrate and otherwise 'create a context' conducive to pretend play *until* such limited pretending takes hold" (Mitchell, 2002, p. 14, original emphasis). According to Taylor (1999, p. 6), the parental reaction to, and

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[5] De Jaegher et al. (2010) propose an example to clarify these roles: "The three roles follow a scale of increased specificity. For instance, a change in air pressure can affect the process of boiling water in an electric kettle, thus making it a contextual factor. An enabling condition, in turn, is required for the phenomenon to exist, but it might not be constitutive. Boiling water in an electric kettle requires the invention of such an appliance and a supply of electricity, although these are not themselves part of the phenomenon—they are enabling conditions. In normal conditions, boiling is constituted by an appropriate heat exchange between a metal plate and the water provoking a phase transition from liquid to steam" (p. 443). Their paper applies the distinction to social cognition context as well; for those examples, see their full paper.

interpretation of, childhood fantasies "are likely to affect children's engagement in pretense, as well as their understanding of the distinction between fantasy and reality." Even a complex pretend activity like playing with an imaginary companion is closely related to salient social and relationship issues: "many young children have imaginary companions similar to characters they have seen on television or in movies" (p. 6).[6]

The phenomenon is also culture-relative. One cross-cultural study (Farver & Howes, 1993) has shown that Mexican children on average reported less engagements with imaginary friends than American children. This difference can be attributed to the parental reactions to such play, motivated by cultural norms.[7] The qualitative difference given the variations in the cultural norms produces variations in pretense behaviors.

3.2. Enabling role: what affects *that* children pretend play?

One way of thinking about social factors as enabling pretense is, for example, in terms of social engagements that scaffold further interaction (Di Paolo, 2016). Naturalistic observations suggest that "the infant's attention and sensorimotor skills are 'educated' by context-sensitive scaffolding resulting in a socially guided mastery of attention and object manipulation" (Di Paolo, 2016, p. 241), which is also visible in pretending. To take the example above, the absence of engaging with others in a normative way could preclude pretense from taking place altogether.

However, in standard cognitivist literature, interaction with others is often seen as a distal than a proximal cause of pretend play. The enabling conditions for pretending are given mainly to proximate causes of pretense, and these are "mental stand-ins" that cause the relevant pretense response to take place (see Section 4 on imaginings and mental scripts guiding pretense).[8] Hence, with that view, sociality does not play a part in enabling

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[6] The parental interactions with the child, including reactions to play and demonstrating how to play, might look like an example of a developmentally enabling role, not just a contextual one (thanks to the anonymous reviewer for this point). However, while it may be historically necessary for pretend play to occur, it is an empirical question whether the absence of parental reactions and demonstrations prevent pretense from occurring. At least, it is intuitively possible to imagine pretend play taking place without social engagement actively shaping it, thought that is an intuition I do not share.

[7] Taylor (1999) suggests that the accepted norms in Mexico, such as belief in the presence of guardian angels and spirits, influence the negative evaluation of child's imaginary play by the parent, who equates it with lying behavior. Parental reactions might also lead more directly to causing the play to continue or cease. This shows that dividing the contextual from developmentally enabling roles can be rather arbitrary in practice.

[8] Cognitivists look for synchronic causes of cognitive processes in the mental architectures of the cognitive agents, clearly separating these causes from diachronic causes, or events "external" to the cognitive process. However, this neat distinction might fall apart when considering cognitive processes taking place in time, being embedded, extended or distributed to the environment and other agents. Hence, a discussion of the relevant notion of causality for enactivists is of high importance, but beyond the scope of this paper.

pretense; it mainly serves contextual and motivational roles. This paper will propose challenging this view and considering the different means by which we can speak of sociality as enabling pretense.

3.3. Motivational role: what affects *why* children pretend play?

That social engagements motivate the reason *why* children engage in pretense has been acknowledged. For example, as Picciuto & Carruthers (2016) write,

> [We] rather doubt that the child pretending to be a dead cat is doing it because she thinks dead cats are admirable or that it is desirable to be a dead cat. In this case the motivations might be social, however. The child pretends something with the goal that it should be found amusing by others. Moreover, when children engage in joint pretense, the rewards might derive in part from the mere fact of doing something jointly with another person. For children (and adults) appear to find joint attention and joint action intrinsically rewarding. (p. 318)

Gleason (2013) also proposes that "an important feature of [the existence of imaginary relationships] is social in that they afford a malleable and dynamic forum for practicing, exploring, and managing relationship issues" (p. 252). The suggestion is that one finds affordances for pretend play motivated by the desire to practice social situations that have been observed.

3.4. Constitutive role: what *is* part of children's pretend play?

The question at hand is whether or not these social interactions play more than a contextual or motivating role for pretense. Classic cognitivist proposals consider social factors as external to cognition, and this holds for pretense as well. However, some recent views that strongly emphasize the constitutive role of social interaction in shaping pretense have been advanced, such as Varga (2011) who writes that "we must conceptualize pretend play as an inherently social activity that entails prior understanding of others as intentional agents" (p. 48). He says that pretending is not an "individual cognitive phenomenon" whose "focus is upon intentional, interpretative abilities that involve both pretend play and social cognition" (p. 47); it is rather *already constitutively social* to begin with:

> Pretend play *is* already a cooperative activity of interpersonal sharing long before children acquire a concept of belief, or the capacity to meta-represent. The ability to pretend may thus only develop in conjunction with intersubjective awareness, through an acquaintance with other intentional agents. [...] The point is that the interaction pertinent to social cognition does not just lie at the end of a cognitive process, but might already be at the core of intersubjectivity [...] [The] ability to pretend is the ability to engage in a form of interaction or collective intentionality that entails prior understanding of others as intentional agents. (p. 50)

Seeing pretense as inherently social improves our comprehension of this phenomenon. We can understand why, for example, autistic children engage in limited forms of pretense; it

is not because they lack a developed Theory of Mind,[9] but because they may lack the ability to engage in shared intentionality.[10] The constitutively social account of pretense reflects a hypothesis brought forth in Enactive Cognitive Science.

4. Proposal for the Enactive Account of Pretense

Enactivism is a philosophical framework that emphasizes

> the growing conviction that cognition is not the representation of a pregiven world by a pregiven mind but is rather the enactment of a world and a mind on the basis of a history of the variety of actions that a being in the world performs. (Varela, Thompson & Rosch, 1991, p. 9)

It stresses the role of the body and the social environment in shaping the mind. The enactive approach to cognition importantly considers the individual in the intersubjective context, and takes into account the role of objects and other people in shaping cognition. The outcome of this approach is that it finds mentality in worldly interactions.

Enactivism has been recently presented as a *philosophy of nature* (Gallagher, 2017). This means that it

> takes seriously the results of science, and its claims remain consistent with them, but it can reframe those results to integrate them with results from many sciences. [...] Moreover, the requirements of such a reframing may indeed call for a vocabulary that is different from one that serves the needs of any particular science. (p. 22)

Enactivism, therefore, reframes our understanding of what cognition is:

> The explanatory unit of cognition (perception, action, etc.) is not just the brain, or even two (or more) brains in the case of social cognition, but dynamic relations between organism and environment, or between two or more organisms, which include brains, but also include their own structural features that enable specific perception–action loops. (p. 11)

The main unit of analysis is the organism–environment system, not just the sub-personal neural system.[11] Furthermore, enactivism can bring together many different theoretical

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[9] Some argue that a "Theory of Mind," "mindreading" or the ability to attribute mental states (like beliefs and desires so as to make sense of other people) are needed to engage in social interactions and pretense in the first place (Baron-Cohen, 1995). Varga reverses this proposal, showing that first comes the understanding of others as intentional agents, then pretending, and only then comes the understanding of other minds in a specialized "mindreading" way.

[10] Shared intentionality is a basic cognitive capacity, involving the skill of gaze following, emotional attunement, and triangulation. It does not require complex propositional attitudes, but an understanding of others as intentional agents. For that, one needs a concept of intentional attitudes, or an ability to track relations between whole organisms and salient features of the environment (Hutto, 2008).

[11] Some aspects of the organism–environment system can be subpersonal. Thanks to Shaun Gallagher for this insight.

frameworks, such as pragmatism, ecological psychology and phenomenology,[12] as well as explanatory models, such as sensorimotor theories of perception (O'Regan & Noë, 2001), dynamical systems (Chemero, 2009), or even predictive processing mechanisms (Bruineberg et al., 2016).[13]

The enactive account thereby re-describes what is, and how to explain, pretense as well. It proposes that engagement in pretense is highly expressive: rather than being "inside one's head," it mainly involves manipulating objects in the world and exploring new possibilities for action (affordances) in engagements with others, which can be perceived in action (Rucińska, 2014; 2016; 2017). The ability to see playful affordances *in* objects, combined with embodied actions, is sufficient for some basic types of pretend play. Sensorimotor skills take over the role of *off-line* imaginative capacities and provide support for *on-line* perceptual-imaginative capacities based on direct perception instead. Other people further shape what affordances we see and respond to in the environment, through guidance, verbal feedback, reassurances, gestures and other responses, but also, sometimes just by their presence. The outcome of this approach is a *performative* notion of pretense: pretend scenarios are *presented*, performed, or enacted in the world, not represented in detachment from the world. According to the enactive view, there is no need to represent the play in advance; rather, representing is a *result* of engaging in pretense.[14]

Enactivism, thus, embraces social re-characterizations of the phenomena.[15] As Di Paolo (2016) acknowledges, perception is influenced by the social world, as "objects themselves, the situations they are embedded in, and the practices they involve are largely social in origin" (p. 236) and social origins "should not be seen as trivial regarding the effects on the development of infant perception and cognition" (p. 236). This means that what we see is already shaped by social and cultural practices, which makes a mark on the perceptual and cognitive capacities of human agents. According to Di Paolo, social skills involved in responding to each other, such as "linguistic mediation, make-believe play, and

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[12] For further arguments on possible unification of these fields, see also Heras-Escribano's (2019) *Pragmatism, enactivism, and ecological psychology: towards a unified approach to post-cognitivism*.

[13] Enactive Cognitive Science might even, in principle, be compatible with certain ways of framing mechanistic explanations of phenomena at the relevant level of description, since being mechanistic does not necessarily entail representationalism (Miłkowski et al., 2018). However, this point is under much debate and needs more space for defending than this paper allows.

[14] By "representing" I mean the activity of showing something or performing a situation. This is a performative notion of representation, like an activity found in the arts; it is not a reference to mental representation understood as an explanatory posit of cognitive science.

[15] Couldn't one propose both a representational and a social account of pretense? While such a story could in principle be told, enactivism is a philosophical position better placed to account for the sociality of pretend play since it considers the dynamical, organism–environment interactions as part of cognition; these interactions involve social environments as well. Representationalist positions are mainly internalist, and would have to propose both mental representations for social engagements and still need mental representations for pretend engagements, and then would have to show how they interact, making such an explanation more demanding.

the ability to control perspectival switches are constitutive—i.e. are of the essence—of the ability to see objects as present" (pp. 228–229).

This paper thereby agrees both with Varga and Di Paolo that pretense is a constitutively social activity, and suggests that enactivism can propose a story about how sociality plays a part in *enabling* pretense as well.[16] This paper will clarify that both active engagement with, and passive presence, of the other, guides the pretender to play in a specific way with the object at hand.[17] The history of interacting with objects can play an enabling role in pretense, albeit extended in time: in a playful context, objects invite one to re-enact a familiar social situation, without following a mental script.

The enactive account of pretense can therefore suggest some answers to the question "how does a child pretend" that will make the role of social interaction even more explicit in enabling pretend engagements, without invoking complex representational or imaginary toolkits in its story. Enactivist tools will include a sensorimotor and ecological account of perception that takes over the role of offline representational processes, as well as the enactment of routines instead of invoking of SPMs for internalizing rules of behavior into mental scripts. These proposals will be discussed in more detail below.

5. The Role of Perception and Enacted Routines in Pretending

5.1 Perception instead of Imagination

Across the current theories, pretense is said to require a myriad of cognitive capacities,[18] but the one capacity most often cited is the capacity for *imagination*. In philosophy of mind, pretending is scarcely discussed independently from imagining.[19] The concept of

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[16] If it is plausible that pretense is a constitutively social phenomenon, then it should make room for an explanation of pretense that brings in sociality into the causal structure of the phenomenon. However, to what extent the enactive account of pretense alone can provide a satisfactory causal story of cognitive phenomena like pretense, whether causal-constitutive divide is relevant for pretense, and whether sociality playing an *enabling* role can be part of a scientific *explanation* of pretense, are questions fundamental to understanding the full scope of the enactive cognitive science, yet far beyond the scope of this paper.

[17] For the purposes of this paper, I will treat a guiding relation as a kind of an enabling relation. I will speak of affordances as guiding behaviours, and therefore, I think that they can play a role as enablers of pretense. However, affordances are not causes in the traditional sense of the term. Defending the position that affordances enter into causal relations specifically understood requires further analysis of the notion of causality at play.

[18] These capacities include possession of conceptual knowledge, "double knowledge" (knowledge of what is real and not real), intentionality, being in the right mental state, having mental attitudes that are "belief-like," shifting perspectives, mapping and following rules, or meta-communicating (Piaget, 1962; Leslie, 1987; Harris & Kavanaugh, 1993; Lillard, 1994; Mitchell, 2002; Nichols & Stich, 2000, 2003).

[19] For example, in the *Stanford Encyclopedia of Philosophy*, pretending only features in short subsections of the entry on imagination (Gendler, 2011).

imagination should also be treated as an umbrella term, encompassing a variety of capacities such as imaging, creative, fabricative or cogitative imagination, or acts of making things up (Hacker, 2013). The capacities involved in understanding imagination involve perceiving, remembering, thinking and playing, and it is not inconceivable that many of the distinguished categories actually overlap in practice (e.g., the "visualizing" aspect of imaging, and the "seeing as" aspect of perceptual imagination). While a number of interpretations over the nature of imagination are available (Beaney, 2010), imagination is also often characterized as representational. For example, Veneziano (2002, p. 60) describes imagination as implying "some displacement from the reality plane and thus meaning transformations relative to the meaning that the actions and the objects involved would have were they considered literally," where meaning transformations can be understood as manipulations of representational contents.

Imagination is said to play a key role in pretense. It enables counterfactual thinking or simulating perspectives, guiding and elaborating pretense as it unfolds. To quote Kind (2013, p. 142),

> Philosophers have assigned imagination an especially central role in [engagement with fiction, pretense, mindreading, modal epistemology]. [In a pretense context,] imagination is supposed to *explain why* we take the actions that we do when engaging in games of pretend. [For example,] in pretending to be a Jedi Knight, Christopher imagines that the tree branch in his hand is a light saber.

The most current account of pretense characterizes pretense as *embodied imagination* (Picciuto & Carruthers 2016). As they write, embodiment is important for pretense, as "you cannot pretend without overtly doing anything" (2016, p. 314). But what makes pretense special, or different, from mere acting *as if*, is the involvement of imagination that actively guides the pretense. They write that

> [...] [To] pretend that P is to act as if P (without believing it) while imagining that P. A child who pretends that the banana is a telephone needs to suppose that the banana is a telephone, or to imagine the banana as a telephone, and act accordingly. [...] Indeed, when pretending one performs an action of one sort (holding a banana to one's ear, say) not only while imagining it as an action of a different sort (talking on a telephone), but *because* one does so. For this reason, we think that pretending only lasts for as long as imagination actively guides one's movements. (p. 317)[20]

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[20] The view that imagination (understood as a representational capacity) guides pretense is already visible in the work of Walton (1990). Walton says that "a child playing with a toy truck does not merely look at it and imagine what it prompts him to imagine. He 'makes it go'—fast or slow, into one room and another, and so on. When he does he imagines a (real) truck behaving in these ways. The toy is hardly to be credited with prompting *these* imaginings, nor is its movements. He made the toy move in certain ways because of how he wanted to imagine a truck moving, rather than vice versa" (1990, p. 24).

How imagination guides pretense is by allowing one to represent counterfactual situations. How imagination achieves this is presumably via manipulating mental representations of counterfactual situations in SPMs, as suggested in section 2 (e.g., Currie's *decentring*).

In contrast to imagination-based accounts of pretense, enactivism can offer a perception-based account of pretense.[21] The enactive account shows how the sensorimotor account of perception (O'Regan & Noë, 2001) allows us to understand pretense in action. It promotes a view of perception that is intimately linked with action. O'Regan & Noë follow the motto that *perceiving is something we do.* They claim that

> A crucial feature of our theory […] is the involvement of the body in experience. The peculiar, *sensory,* quality of our perceptual experience consists (in part) in the fact that movements of the body produce changes in our sensory stimulation. (2001, p. 1016)

The sensorimotor approach to perception relies on the "situated, active agent, as constituting perceptual objects in a structured coupling with the environment" (Di Paolo 2016, pp. 233–234). Action changes how we perceive the world and explains how we get to see things in new ways. For example, when dealing with a banana, the features of the object (its shape and size), and the children's sensorimotor capacities, mutually interact so as to allow the child to lift the banana to the ear and begin to treat it as if it were a phone. Depending on the body of the agent (e.g., having a hand that can grip objects, having a functioning arm that can bend), an object like a banana can be grasped and brought to their head with minimal effort.

Apart from perception being embodied and being for action, action shapes the capacity to perceive. This idea is strongly highlighted in Ecological Psychology. Gibsonians appeal to "perception-action loops" that refer "to the necessity of a dynamical interaction of the perceiver and the environment in order to generate, and be able to pick up [ecological information]" (Travieso, et al., 2014, p. 386). Gibson (1979) also introduced the notion of affordances, or possibilities for action that are available for perception. The ecological account of perception could describe the play situation as involving different informational invariants coming up in that context. What could be seen in the interaction are not necessarily the typical meanings of objects (the assumption that when seeing a phone, one first represents it "as a phone"), but the new meanings that are relevant to the play context and which emerge through play.

In the enactive account of perception, what we perceive is what we can do with the object now, irrespective of how it is typically conceptualized. As perception is not *given*, but

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[21] This is not to suggest that even Radical Enactivism cannot account for imagination; there are available proposals in the literature that seek to explain imagination through the enactivist, non-representational lens (see, e.g., chapter 8 of Hutto & Myin, 2017, or chapter 10.2 of Gallagher, 2017). Rather, this paper follows the position that if imagination or imaginative capacities are necessarily representational and different from perceptual capacities due to their involving representing special representational contents, then the enactive account does not need to refer to such imaginative capacities to make sense of pretense. Enactive account of perception will suffice.

acted out, one sees what is relevant in a situation and what one can do with an object, instead of what it typically means.[22] Often, what is relevant in play is different than what is relevant for daily life. Thus, one may be able to see chairs as "for jumping on" in play context, instead of as "for sitting on" in everyday context. Seeing a banana "as a banana" *per se* or a chair "as a chair" *per se* is seeing for the act of *contemplation* of these objects, something we actually rarely engage in. As Di Paolo (2016) captures nicely,

> I am hardly ever confronted with abstract objects, which I regard and inspect in their perceptual presence in a manner devoid of interest or social value. Most of the time, I work my way around a world of social and biological purposes and norms, for which objects are seldom present to me as the bottles or tomatoes that populate the examples of perceptual presence in the sensorimotor literature. (pp. 229–230)

For example, in a banana we could see the possibility of enacting a "phone" routine in the context of play; in a chair we could see the possibility of enacting a "mountain climbing" routine, etc. Hence, one does not just see an object or an action "in itself," but sees the potential actions one could engage in with that object. As bananas afford both eating and playing phone with, both actions are available to perception. I see the banana not as an object in-itself with a fixed meaning; I see the banana in terms of how I can use it, given in a specific context. And I certainly don't see two bananas—banana *qua* banana and banana *qua* phone.[23] According to the enactive account, there is no true representation of affairs (e.g., seeing chairs "as chairs") that takes priority; the meaning emerges in a specific interaction, at a specific time and place. Sitting down on chairs is simply a more common situation in which we find ourselves.

That the perceptual account can be applied to the pretense context in order to explain the emergence of symbolic thought has already been suggested in the psychological literature that follows Ecological Psychology. Szokolszky (2006), for example, argues that the making of new metaphors is a perceptually guided process:

> Perception is direct in being unmediated by mental representations of the world. In accordance with this view we suggest that at the heart of metaphor is the direct pick-up of (resonance to) an invariant pattern in an informational array that is specific to both the topic and the vehicle (such as, for flowers and fireworks, invariants that specify progressive expansion from a central point). In this way, metaphor, as other forms of knowing, relies on a fundamentally perceptual process. (p. 87)

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[22] We can compare the enactive view of perception to the standard theory of perception to understand its relevance for pretending. According to the standard theory, perception is understood as requiring storage of sensory information from the world and being able to make an inference, or mental reconstruction, of the external world. Sensory systems are informing one about what one sees, which makes perception something "given." When one perceives the object one plays with (a banana), one already represents it in perception "as a banana," and therefore, needs some form of a process whereby one treats the banana as something else. Only with a *decoupling* or *decentring* mechanism in place, one can engage in pretend play.

[23] Thanks to Shaun Gallagher for this phrasing.

Hence, it could be said that in manipulating an object, one is treating it metaphorically. The metaphor is thereby "not sitting in the head," but enacted (Gallagher, 2017).

Thus, the enactive account of perception that brings in the sensorimotor and the Gibsonian account of perception allows for a new proposal of *seeing-affordances-in* action, instead of engaging in representational *seeing-as* (Rucińska, 2014). S*eeing-affordances-in* is an account of how objects and situations may be engaged with, using a basic capacity such as a sensorimotor mechanism to actively explore objects in the world. Such embodied explorations can open up seeing possibilities for new forms of engagements in play.

This suggests that no special mechanism is needed to quarantine one meaning from the other; only one of the meanings is perceptually relevant at the time. How it is that "phone" play specifically gets afforded will be determined by the context of the play that involves social norms and acceptances of playing in a certain way.[24] This will be elaborated on in the next section, where what is needed instead of mental scripts to guide specific action will be discussed.

5.2. Enacted Routines instead of Mental Scripts

How do we get to play in a specific way? Don't we need scripts, or representations of situations, to guide play? Often suggested in literature on pretense is the idea that in order to be guided by past experiences, one must represent them as rules for behavior and inter-nalize them into schemas or *scripts*. The standard story proposes script-following as being crucial for guiding pretense. Written scripts, such as those produced by playwrights, detail the way the action unfolds. The assumption is that the scripts that guide pretense must be internalized or crafted internally into *mental scripts*. Mental scripts are clusters of mental contents whose role is to be "detailing the way in which certain situations typically unfold" (Nichols & Stich, 2003, p. 34).

Nichols & Stich compare the scripts to plans for actions. Scripts are said to play a specific explanatory role: they are supposed to guide *what* is to be pretended, *how* it is pretended, and *how* the pretense gets to be *elaborated*. To play their guiding role, the first assumption about the scripts is that they must be decoupled from the world: "(In) normal development children acquire 'an increasing capacity for internal creation of a complex script' which is detached from 'the external context'" (Harris & Kavanaugh, 1993, p. 234). However, they also should stand in close proximity to the external context, in order to reflect it. Thus, the second assumption is that an elaboration of the narrative occurs in a separate module: "Since the representations in the child's Belief Box are closely tied to the external context, this 'complex script' must be elaborated in some *functionally distinct component of the*

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[24] For example, to explain how specific "phone" play gets afforded to the subject in a particular context is a question that involves various components, including the aspects of the tool (the banana can solicit "phone" because its shape and size correspond to that of a [now old-fashioned] phone) and the aspects of individual differences (background knowledge, skills, moods).

mind" (Nichols & Stich, 2000, p. 45). This leads to proposals such as positing of an SPM for flagging, or the Script Elaborator and the Possible World Box modules (see Section 2). For example, it is the PWB that manipulates mental scripts (2003, p. 34), spelling out what the world would be like in the imagined counterfactual scenario. The Script Elaborator then specifies how things will unfold or develop (2000, p. 127). With this model, the Script Elaborator is thereby responsible for the novelty and creativity of pretense.

However, apart from the questionable metaphysical status of the SPMs and the general worry of where they get their novel content from, why assume that the elaboration of the script, or new script creation, must occur in a functionally distinct component of the mind, or be detached from the immediate world? Must we be guided by scripts at all? Funkhouser & Spaulding (2009) seem to take a less internalist stance and argue for the active role of the external script (or "script *outside* the agent") in shaping pretend play. The external script includes "a physical script, the behavior of another individual, or a social norm" (p. 310). They allow external scripts to guide only "*in conjunction with* internal scripts," understood as mental scripts or represented "maps by which we steer; directors; means selectors" (p. 307). The assumption behind looking for internal scripts that guide action is a worry about how else to understand the directedness of play in the "absence" of direct stimulus, and a lack of understanding in how we can follow a public script without internalizing it into a mental script.

The enactivist account can shed new light on these worries. Enactivism challenges both the modularity and the decoupleability condition for elaborating pretend play. The alternative is to propose that the pretense is elaborated not via a represented action plan or a mental script, but that it is elaborated in the ongoing action as a response to environmental and social affordances for play, shaped by ongoing social interactions.[25] Counter decoupleability: responsiveness to new affordances provided by the social context at play drives the elaboration of play. Counter modularity: one does not need to posit internalized rules of behavior; one simply re-enacts experienced routines (i.e., the practices that are called for) in play.[26]

According to the enactive view, social affordances can explain how play can be guided without following mental scripts. Responding to others, or social attunement, is one aspect of the ongoing play elaboration. Creating new meanings together is another. Other people

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[25] This proposal sounds like play is completely steered by the environment and not internally guided. For example, "reenacting experienced routines" sounds like re-executing routines stored in memory from previous instances, and thereby guided by some mental model. However, enactivists do not offload cognition to the environment, and need not deny internal mechanisms playing relevant roles. A proposal for such mechanisms will be made in Section 7. Also, an enactivist account of how memory works is important, but providing one is beyond the scope of this paper. All that enactivists should deny are special mental models, such as SPMs, to be part of the cognitive architecture.

[26] An enactivist account of memory is needed to further this argument. See Hutto & Peeters (2018) on radically enactive recollecting.

enable "stepping away" from everyday practice and guide new play practices. In creating an intersubjective context, they directly affect the actions of the playing individual.[27] First, they can do so through direct engagement in play with the child. For example, parents show how to "pretend call" from a banana, or how to "pretend drink" from a cup, which the child imitates. Imitation and over-imitation plays a crucial role for shaping pretense (see Section 6). But explicit guidance is not always necessary. In joint action, new affordances get solicited in the action that would not be available to the individual. For example, a banana held by a single child can solicit a phone, but held by two children, who each hold one end of the banana, can solicit a little swing, together enacting new possibilities for play.[28]

Moreover, others play a structuring role through their mere presence in the vicinity of the play context (Rucińska, 2017). The structuring of play can be indirect; others who are spectators of play produce constant emotional feedback, such as smiling, which is responded to by the pretender as an invitation to continue the game. For example, when a child is exploring ways to play "tea party," the smiles, gestures and actions of caregivers or fellow playmates reassure the child in what he or she is doing. When the mother smiles at a toy, the toddler smiles at that toy as well, while if the mother shows to be frightened of the toy, the toddler is then wary of the toy. The phenomenon has been called "social referencing."[29] Thus, mere presence of others can drive pretend "phone" play with a banana: the parents of a child interacting with a banana could make the child's acting on "phone" affordances more likely by smiling and approving the various ways the child explores the object at hand. How the spectator shapes the play is especially visible in a game of charades.

De Jaegher & Di Paolo (2007) discuss the case of playing charades together in the context of Participatory Sense Making, a theory about how we make sense of others through coordinated interaction. It could be said that different affordances become present to the actor depending on the responsiveness of the teammates. The actors tend to adjust their

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[27] This is in line with Vygotsky's theory of supervised activity (1978): the "The Zone of Proximal Development" captures the structure of dialogical interactions whereby children extend the range of their comptences through experts' supervision.

[28] One example of successful elaboration of play is seen in systemic dialogical therapy, where the therapists help clients get out of their destructive routines or habitual ways of looking at and interacting with the world, though sustained conversation and joint play. As Rucińska & Reijmers (2014) suggest, in play therapy we find therapists and clients who try to create new meanings together; playing "adds and reinforces the [existing] narratives, allowing new perceptions and meanings to be created through the use of objects and interaction with the therapist" (p. 39).

[29] In Klinnert et al.'s (1983) "visual cliff" experiment, two-year-olds had to crawl over visually present "drop" under a transparent glass cover. The experiment found that toddlers were reluctant to continue crawling, unless their mothers' faces showed approval. As Astington (1994) comments, "In such a situation their behaviour can be influenced by the expression on their mother's face. If she smiles cheerfully the baby is encouraged to crawl over the glass but if she looks fearful he will not cross" (p. 40).

behaviors in relation to the spectators: seeing that their audience does not understand the act or gesture (e.g., "bird in flight"), the actors adjust their behavior to accommodate the understanding of the spectators, and explore other means of depicting the same thing (e.g., if flapping hands up and down does not work, one tries something else). In that sense, the reactions of others bring forth novel affordances to be inviting to the pretender. This is supported by recent studies, which show that infant's understanding of others is more robust in interactive contexts; these contexts indicate the significant importance of second-person interactions for cognitive and social development (De Jaegher et al., 2010).[30]

How do specific affordances get solicited? Canonical play affordances (Costall, 2012) are the first to strongly invite, or solicit action:

> For example, an animal's feeding practices set up the bananas to canonically afford 'eating,' but at times of winter, it can set them up for 'storing.' The canonical affordances are shaped by wider socio-cultural context, such as past practices. Canonical affordances can explain some pretense. One way to think about pretense being canonical is thinking of it as stepping into another practice, such as from 'banana-eating' practice to socially established 'banana-phone game' practice. (Rucińska, 2017, p. 271)

Even when playing alone, a child at play brings forward, or re-enacts, past interactions in the form of embodied routines that are enacted on novel objects. Since the child has a history of interactions with a caregiver, who has approved or disapproved certain forms of play by reacting (e.g., with laughter and encouragement, or the opposite), the child is taught what actions are acceptable in play and how to depict these actions so that others understand and accept this play. It is the expectations of how to play a bird in flight, and a commitment to accepted ways of playing "birds," that guides the play, as opposed to internal mental representations of "birds." A history of interactions guides how the child pretends now, as it shapes the affordances for social engagements that are present in the play context. As social engagements are always normative, and the child enacts normative ways of playing, this makes sociality a candidate for an enabler of pretense extended in time. Re-enacting routines in play is not less of a socially constituted act when playing alone, just as inner speech is not less of a social act because it is directed at the self (Geurts, 2018).[31]

Enactivists can therefore propose that pretense routines or elaborations need not be done in distinct mental architectures or SPMs that separate reality from fiction. SPMs that allow for script elaboration are not needed as one follows routines observed or imitated

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[30] To clarify the role of others in shaping the animal–environment dynamic, consider an analogy to being vulnerable. McKitrick (2003) discusses how objects like sensors can make a city less vulnerable to an attack; It is the dynamic between the city and its attackers (not between the city and the sensors) that is changed by the sensors (161). The point is simply that other people (just as objects) can influence the dynamic between the environmental affordances and others without being the focus of that dynamic themselves (Rucińska, 2017).

[31] As Geurts points out, social acts such as "asking, telling, promising, and reminding" get transformed into private acts when addressed not to others but to oneself; "they come to function as modes of thinking: wondering, making up one's mind, motivating oneself, and so on" (2018, p. 272). My suggestion is that a similar pattern is visible with pretend games, which involve re-enactments of social behavior.

from the environment one has participated in, the affordances for which are present in the context of play. Keeping track between reality and fiction is also not needed to save the child form being confused about being at play. The social context (including gaze of others and intersubjective setting up of a play environment) is the verifier of the condition of the play situation.

Are scripts even necessary at all? Enactivists will follow Ryle's (1949) insight that there are not two processes happening, whereby the first is "mental" and the latter is merely motoric. As Ryle describes the traditional doctrine, in the "bear" pretense,

> it is not denied that the child is doing lots of other things as well; he roars, he pads around the floor, he gnashes his teeth [...] His noises and antics may be a help to his picturing, or they may be special effects of it, but it is not in making these noises, or performing these antics, that he is exercising his imagination, but only in his 'seeing,' 'hearing,' 'smelling,' 'tasting,' and 'feeling' things which are not there to be perceived. [...] Put as bluntly as this, the doctrine is patently absurd. (p. 243)

According to Ryle, "the child is not doing two things at once, any more than I, in quoting you, am saying two things at once" (p. 246). Following Ryle's insights, thinking that genuine pretense lies in the making of a mental script that delineates action in advance of that action, is a category mistake.

To summarize, the alternative proposed in this paper suggests that one enacts a routine without following scripts. Routine re-enactments have many degrees of freedom and allow for exploration and creative responses to emerging affordances. Enactivism does not need to assume that the child has a system of understanding symbols and representing right meanings in order to engage in pretense; in reverse, the child engages in pretense first, which allows for new meanings and symbol systems to be put in place. Social pretense is achieved without pre-established constitutive rules; the rules of the game, if any exist, are negotiated on the go. And while children gradually learn to impose rules of the games, and can create explicit scripts (this is how one plays "tea parties"; "green pebbles now mean apples"), such script-making is not necessary in order to engage in pretense in the first place. Explicit scripts can be created to explicitly guide pretend activities, but they are not preconditions to being able to play in a directed way.

6. Conclusion

This paper proposed that engaging in make-believe, or creating new scenarios during pretend games, is actively shaped by worldly and social affordances. According to the enactive account, one learns how to see new affordances, or possibilities for action, through active engagement and interaction. Social interaction also affects seeing new possibilities for action. Applied to the pretense context, one learns to see new playful affordances of an object through exploratory play and playing with others, thereby learning about metaphoric meanings of objects *through* engaging in pretend play (as opposed to representing it *in advance* of pretend play). This proposal can account for acting in new and creative

(or at least non-standard) ways that is characteristic of pretending, without introducing special cognitive mechanisms such as quarantining, script elaborators or special imaginative mechanisms to account for what guides pretense.[32]

How does this proposal deal with the bypassing challenge? The "bypassing challenge" becomes moot. One does not bypass a "true stimulus" or a "correct representation" and opt for a non-standard response. One does not need to bypass the original meaning of objects, since only relevant meanings, including the pretend ones, come forth in play. The response that has been selected is not a less obvious one; the banana affords both forms of responses ("as banana" and "as phone") equally, depending on the context one finds oneself in.[33] Once we learn of a practice, we see possibilities of acting it out in different situations, shifting to it without bypassing the standard situation.

One may worry that the pretense situations will be less common, that a banana is more often encountered in "breakfast" context rather than "play" context, and so it should first and foremost afford "food," not "phone" engagements (Rucińska, 2017, p. 272). But even *if* some form of "stepping away" or inhibition of responding to typical affordances were needed, it is not settled that the inhibiting must be achieved by a procedure that involves mental representations. As Varga (2011) proposed, referential opacity—knowing that what is pretended differs somehow from the real—is good enough for pretend play, and that knowledge could be seen as knowing "how" to play and recognize playful contexts based on affective and intersubjective skills:

> [P]retence is seen as a result of giving a coincidental object a new and temporary description, which emerges out of shared intentionality. [...] Pretence therefore involves the collective creation of new temporary functions. (p. 49)

The enactive proposal suggests that the temporary functions are not "absent functions" that were internalized earlier and now need to be brought forth as representations, but simply different ways of engaging with an object, ways that become present in the specific temporal context of play.

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[32] The enactive view proposes to think of pretending in terms of there being only one reality, in which a given object simply takes on new functions, determined by the need of the game. There is nothing special about pretense that requires the positing of another imaginary "reality" and storing such descriptions in the shape of mental scripts. Instead, the enactivist proposal is that we switch between different ways of treating the object, and not between true vs. fictional representations of objects. For example, we switch from engaging in the routine of treating bananas "as food" to routines of treating bananas "as phones," stepping from the everyday context into a playful context, and back to everyday context at the end of play. Similarly, we switch from acting out a long-term role (being a child, a student, a father) to a short-term role (being a "king" or a "bear" as loosely inspired by narratives about kings or bears). Just as we shift our roles from being conference speakers to listening participants in the context of a conference, or from mothers to daughters depending on the family members we interact with, so we shift from typical use of objects to playful use of objects.

[33] The response to engage with a banana as if it were a phone is afforded in the context of phone play, constitutively shaped by social norms and further enabled by social interactions. Pretense entails prior familiarity with the phone practice, which is over-imitated on a banana. As the phone practice is taught, enacted and fortified by using phones and other objects such as bananas, the bananas in turn gain social affordances (affordances bound to practices) perceptible in play circumstances that allow re-enacting the "phoning" activity.

One might still question whether enactivism can explain how we deal with *absence*. The worry might be that there is an absent *referent* when dealing with pretense. As Harris & Kavanaugh (1993) claim, "In Piaget's terms, Jacqueline [who acts as if a cloth were a pillow—added comment] treats the cloth as a symbol—it serves as a signifier whose referent (or signified) is the absent pillow" (p. 68). The idea is that we encounter *absence* in the first place, and we *must* stand back from the immediate environment. Imagination and mental scripts are brought in to explain how we can deal with absence. Representations are supposed to act as stand-ins during the period without direct stimulus so that we can refer to something that is not there. Scripts provide plans for action in the absence of explicit guiders for play. Both are supposed to explain why play is not random.

A way to address this worry is to show that the worry is misguided; enactivism does not assume absence to be represented in pretend play at all. In the case of pretending that, for example, a box is a "car," the "car" need not be represented because there is no absence of it to begin with. What one is directly seeing is the box as a *present* affordance for ways of acting as if it is a car. What happens is that in manipulation of the object, a car scenario is enacted. There is no absent car one needs to refer to, but a present metaphor "car" that is enacted. It is not clear whether pretend play deals with any absence from the immediate environment to begin with. It is highly questionable whether the agent ever acts independently of what is seen. Even in pretend play one responds to present affordances for social interaction, instead of representing absences. In play-acting a bear, the child is not enacting the bear out of absence (as if there is a bear someplace else that the child has to distinguish from what he is doing); he is presenting a bear in his actions. The enactive account suggests re-characterizing absence as presence extended in time, whereby one re-enacts, or brings forth in experience, familiar or desired situations. With slight additions, re-enactments can lead to the creation of new routines. Thus, even if there is no explicit prop to be manipulated, the play is rarely acted out solely in the head of the pretender; other objects and situations in the world still afford various forms of play.

7. Follow-up: What is in Play without the SPMs?

The enactive account of pretense, which captures the necessarily social nature of pretense, does not aim to serve only as a re-description of the cognitive phenomenon of pretending. It suggests proposals for the enactive cognitive science of pretense that look for explanations of the phenomena in the right places. One such proposal is that to explain pretending, we should move away from positing SPMs, and instead look for other cognitive skills and mechanisms that might explain how pretense is possible. The story of how pretense is possible will, in my view, include triangulation, (over-)imitation, affective responding and predictive processing. Why they are important for pretense will be explored briefly below.

An account of how pretense is possible will need to include an explanation of the intersubjective capacity for triangulation with, and attunement to, others, which is the basis for all

social engagements. We should better understand what makes the capacity for intersubjectivity possible, instead of looking for theory of mind mechanisms, to understand pretense. For example, development of *shared intentionality* may be one of the settings that allows one to pretend under a specific description. Dismissal of the "bypassing challenge" motivates looking further at attunement to others that could be sufficient for referential opacity.

Another factor to be examined is the capacity for imitation and the occurrence of *over-imitation*.[34] Over-imitation includes replicating ineffective means, or ones that are causally irrelevant, to one's goal (Gies, 2016). Motivated to match fine-grained features of an adult's behavior instead of playing correctly, children over-imitate, or faithfully replicate arbitrary features of, an adult's behavior (Zawidzki, 2013), and in the safe space of play context, re-enact the learned behaviors to practice and test their appropriateness. Representational triggers, such as having to represent the goal of an action and recognize the purposefulness of such action, need not be necessarily in place in order to engage in over-imitation.

The complete story should include the basic affective "appetite" for interaction. Affective states (such as feelings of trust or good moods) are needed for affordances to shape further play. Newborns are said to develop emotion-based communicative skills (Anderson et al., 2001), which shows in eye-to-eye contact with the speaker, turning of heads towards the speakers, and smiling when played with. They also engage in *hedonic responding*, which is based on affections (Lewis & Brooks-Gunn, 1979). It explains why newborns show attraction to other people and respond to their smiles. According to Reddy & Morris (2004), developmental findings suggest that playful moods can be easily picked up on by children starting with neo-natal imitation. They conclude that the best explanation of their findings lays in playfulness being directly experienced rather than inferred thanks to mindreading or script-following skills. The affective drive for play can explain why only "good enough" play is sufficient for pretense.

Finally, clarification of how perception works can further be augmented by predictive processing theory. Predictive processing refers to the idea that brains constantly guess, or predict, the ongoing stream of sensory input, including the inputs that should result from their own next actions and worldly interventions. The mechanism supports perception and action by constantly attempting to match incoming sensory inputs with top-down expectations or predictions. According to Clark (2016), prediction-driven learning delivers a grip upon affordances, or possibilities for action and intervention that the environment makes available. The idea of creating structures or schemas within which behavior becomes more mutually predictable is captured by the notion of "designer environments" as well (Clark, 2016). If pretense is more of a perceptual phenomenon than we previously thought, predictive processing could further explain how one can see affordances for pretense engagements.

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[34] It is likely that for the pretense to take-off, children must be good imitators. According to Tomasello (1999), imitative abilities emerge in development from animacy and mimicry, fitting onto a specific time of life from birth to about six years of age. Mimicry is a likely first step towards individual pretense due to its developmental priority (Stern, 1985; Tomasello, 1999).

Though these cognitive capacities may not be sufficient, none of them require invoking SPMs. The enactive view leaves room for a wide explanation that involves sociality (social roles playing enabling roles for pretending that are diachronically extended in time) and makes room for other cognitive mechanisms to be part of the overall explanatory story (attunement, imitation, affect or prediction-making processes), without presupposing special cognitive architecture of pretense.

Acknowledgements

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